


CLAIM AMENDMENTS

- SEP
1. (Currently Amended) A method comprising:
writing pixel data to a first virtual memory location;
performing a first pixel transformation at said first virtual memory location in a virtual memory space;
generating a virtual memory address for a second memory location;
using a one-way re-mapping to write [writing] said transformed pixel data from said first virtual memory location to said virtual memory address of said second memory location; and
transferring said pixel data to a memory controller using a memory controller client in a forward, write-through direction.
- COFF
- Claim 2 (Cancelled)
3. (Previously Amended) The method of claim 1 further including writing pixel data to a virtual memory location associated with a memory controller client that receives pixel data written to certain virtual addresses.
4. (Original) The method of claim 3 including causing an operating system to set aside virtual addresses for said memory controller client.
5. (Previously Amended) The method of claim 1 wherein generating said virtual memory address for said second memory location includes transforming the addresses of said pixel data at said first virtual memory location to addresses at said second memory location.
6. (Previously Amended) The method of claim 5 including determining the offset to pixel data by subtracting a base address at said first virtual memory location from the address of pixel data.

7. (Original) The method of claim 6 including adding said offset to a base address of said second memory location.

8. (Original) The method of claim 1 wherein writing said transformed pixel data from said first memory location to said second memory location includes transferring said pixel data to a memory controller using a memory controller client. 

9. (Previously Amended) The method of claim 1 wherein writing said transformed pixel data from said first virtual memory location to said second memory location includes writing said pixel data from said first virtual memory location associated with a first transfer function to said second memory location associated with a second transfer function.

10. (Original) The method of claim 9 including transforming the addresses of said pixel data from addresses in a first virtual memory range associated with said first transfer function to memory addresses in a second virtual memory range associated with said second transfer function.

11. (Currently Amended) An article comprising a medium storing instructions that enable a processor-based system to:

write pixel data to a first virtual memory location;

perform a first pixel transformation at said first virtual memory location in a virtual memory space;

generate a virtual memory address for a second memory location;

use a one-way re-mapping to write said transformed pixel data from said first virtual memory location to the virtual memory address of said second memory location; and

transfer said pixel data to a memory controller using a memory controller client in a forward write-through direction.

Claim 12 (Cancelled)

13. (Previously Amended) The article of claim 11 further storing instructions that enable the processor-based system to write pixel data to a virtual memory location associated with a memory controller client that receives pixel data written to certain virtual addresses.

14. (Original) The article of claim 13 further storing instructions that enable the processor-based system to cause an operating system to set aside virtual addresses for said memory controller client.

15. (Previously Amended) The article of claim 11 further storing instructions that enable the processor-based system to transform the addresses of pixel data at said first virtual memory location to addresses at said second memory location.

16. (Previously Amended) The article of claim 15 further storing instructions that enable the processor-based system to determine the offset to each pixel data by subtracting a base address at said first virtual memory location from the address of each pixel data.

17. (Original) The article of claim 16 further storing instructions that enable the processor-based system to add said offset to a base address of said second memory location.

Claim 18 (Cancelled)

19. (Previously Amended) The article of claim 11 further storing instructions that enable the processor-based system to write said pixel data from said first virtual memory location associated with a first transfer function to said second memory location associated with a second transfer function.

20. (Original) The article of claim 19 further storing instructions that enable the processor-based system to transform the addresses of said pixel data from addresses in a first virtual memory range associated with said first transfer function to memory addresses in a second virtual memory range associated with said second transfer function.

21. (Currently Amended) A system comprising:
a memory controller that receives pixel data and virtual memory addresses for a one-way transformation of the pixel data in a virtual memory space;
a first memory controller client that forwards the pixel data and virtual memory addresses to a first transfer function; and
a second memory controller client that receives data from said first transfer function together with new virtual memory addresses for transfer in a forward, write-through direction.

22. (Previously Amended) The system of claim 21 wherein said first memory controller client selectively forwards the pixel data and virtual memory addresses to one of a plurality of transfer functions and said second memory controller client receives the pixel data with new virtual memory addresses from said plurality of transfer functions.

23. (Previously Amended) The system of claim 22 wherein said second memory controller client writes the pixel data back to said memory controller.

24. (Original) The system of claim 21 including a plurality of transfer functions, one of said transfer functions arranged to write output data to an address range of another transfer function.

25. (Original) The system of claim 24 wherein said transfer functions are associated with virtual memory address ranges.